

CHEMICAL CONTROL OF EMERGENT AQUATIC VEGETATION AROUND FARM PONDS

BIOLOGY JOB SHEET TX-11

APRIL 1995

DESCRIPTION (also called emersed vegetation)

1. Plants rooted in shallow water or along shoreline; erect or prostrate stems with foliage extending into the air above the water surface
2. Examples of herbaceous emergent vegetation are cattails, alligatorweed, bulrushes, maidencane, spikerushes, smartweed, sedges, softrush, waterleaf, water primrose, pickerelweed and sawgrass
3. Woody emergent examples are black willow and buttonbrush

REGISTERED HERBICIDES

1. Glyphosate - "Rodeo"
2. 2,4-D - "Weedtrine-II" (for other 2,4-D products, read labels carefully to insure that brand of choice is registered for aquatic use on emergent plants)
3. Diquat - "Reward", "Weedtrine-D"
4. Fluridone - "Sonar"

APPLICATION RATES (Accurate plant identification is essential; registered products do not control all emergent plants; select herbicide that labels problem plant as susceptible)

1. Herbicide
 - a. Liquid
 - 1) Glyphosate - Mix 1 to 2 ozs of chemical and 1 tablespoon of nonionic surfactant/gal of clean water
 - 2) Diquat - "Reward" - Mix 1 1/4 oz of chemical and 1 teaspoon of nonionic surfactant/gal of water
 - "Weedtrine-D" - Mix 6 1/2 oz of chemical and 3 tablespoons of nonionic surfactant/gal of water
 - 3) Fluridone - Treat entire pond at rate of 1/4 qt/ac-ft
 - b. Granular
 - 1) 2,4-D - "Weedtrine-II" - Treat infested area with 100 to 200 lbs/surface acre
 - 2) Fluridone - Treat entire pond with 3 1/4 to 5 lbs/ac-ft

METHODS OF APPLICATION

1. Liquid
 - a. Glyphosate and Diquat - spray solutions uniformly onto leaves and stems until solution begins to drip
 - b. Fluridone - Mix 1 part with 10 parts of water and apply uniformly over entire pond surface

2. Granular

- a. 2,4-D (Weedtrine-II) - Broadcast uniformly over infested area only
- b. Fluridone - Broadcast uniformly over entire pond surface

TIMES OF APPLICATION

1. Glyphosate - Apply in late summer and fall to non-stressed plants after bloom
2. 2,4-D (Weedtrine-II) - Apply in spring when plants begin growth
3. Diquat - Apply in spring and early summer before plants bloom
4. Fluridone - Apply in late winter or early spring before plant growth begins

OTHER CONSIDERATIONS

1. Diquat products are labeled to topkill cattail only; this material is not registered to control any other emergents
2. Woody vegetation should be treated with glyphosate products as seedlings or young plants; older woody plants are difficult to control with glyphosate
3. Vegetation treated with glyphosate may take more than a week to show effects; extensive, dense stands of vegetation may require several treatments for eradication
4. Fluridone treatments may take 1 to 3 months to achieve desired results
5. Treating algae and submergent aquatics during hot, summer months is discouraged because fish die-offs from oxygen depletions may result. Unless stands of emergent aquatic vegetation are extensive, oxygen depletion is not likely to occur from summer treatments.

RESTRICTIONS

1. Glyphosate - No water use restrictions
2. 2,4-D - Water restrictions vary with formulation and rate; read product label carefully
3. Diquat - Do not use treated water within 14 days for drinking, livestock watering, irrigation or spraying
4. Fluridone - Do not use treated water within 30 days for irrigation or spraying

ADVISORY

Complete eradication of emergent vegetation may not be in a pondowner's best interest. Dense stands of cattail often indicate shallow water created by deposition of soil sediments. Removal of cattails may result in previously clear water becoming muddy or murky. Emergent vegetation growing in shallow water provides protection for small fish from bass, wading birds, and other predators.

REMINDER: ALWAYS READ PRODUCT LABELS AND FOLLOW DIRECTIONS.